

**ABSTRACT OF THE DISCLOSURE**

The present invention is for an apparatus and method for the wireless testing of Integrated Circuits and wafers. The apparatus comprises a test unit external from the wafer and at least one test circuit which is fabricated on the wafer which contains the Integrated Circuit. The test unit transmits an RF signal to power the test circuit. The test circuit, comprising a variable ring oscillator, performs a series of parametric tests at the normal operating frequency of the Integrated Circuit and transmits the test results to the test unit for analysis.